

# NBN EN 12697-22: Resistance against rutting

## Wheel tracking

### Preparations (1 day before testing)

- Place the compacted slabs in the rutting mould (front<sub>compaction</sub> = front<sub>rutting</sub>)
- Make sure the measuring stripes are facing up and towards you when placing the mould in the machine
- Fix the mould with the correct bolts or nuts
- Drill a hole (30 ± 5 mm) in the corner of the left slab and place the temperature sensor inside (see blue circle Figure 1)
- Let the machine run 1000 cycles at room temperature (pressure = measuring procedure)
- Set the heater, 12h to 16h before testing, to 50°C (see blue circle Figure 2)

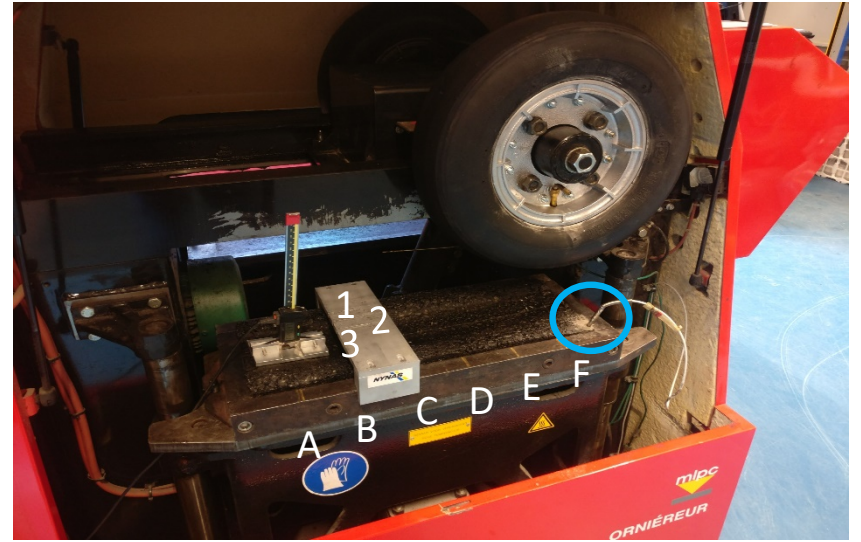


Figure 1: Setup wheel tracking device

### Control panel

- Blue: Temperature settings
- Yellow: Loading settings (To be checked when T = 50°C)  
See white stickers for correct loading => Use the black buttons to adjust the loading
- Red: Up and down movement of the slab
- Green: Loading cycles settings
- Pink: Start/stop buttons



Figure 2: Control panel wheeltracking device

Table 1: Loading scheme

| # Cumulative Cycles | # Test Cycles | Test Time |
|---------------------|---------------|-----------|
| 1000                | 1000          | ± 17 min  |
| 3000                | 2000          | ± 34 min  |
| 5000                | 2000          | ± 34 min  |
| 10 000              | 5000          | ± 85 min  |
| 20 000              | 10 000        | ± 170 min |
| 30 000              | 10 000        | ± 170 min |
| 40 000              | 10 000        | ± 170 min |
| 50 000              | 10 000        | ± 170 min |

### Measuring procedure

- First do a zero measurement to get the correct slab thickness
- Check the loading (see control panel) and tire pressure (6 bar)
- Set the correct amount of cycles (see Table 1), raise the slabs and press start. Check your personal timer to ensure the machine didn't stop counting. (For all loading cycles!)
- Procedure
  - Raise the slab, start running and stop the machine so that the tire stops in the middle of the slab
  - Push the tire as close as possible to the control panel
  - Always perform a zero set on the mould before measuring (A, B, C, D and E)
  - Measure 3 times on A, B and C (9 times in total) on the left slab + Measure 3 times on D and E on the right slab (6 times in total)
  - Raise the slab, start running and stop the machine so that the tire stops in the middle
  - Push the tire as close as possible to the wall and measure all the other points

### Attention :



- 1) Always contact the permanence in case of doubt.
- 2) In case of excessive rutting (> 20%) stop the test and contact one of the managers
- 3) Contacts:

Lab manager: Jan Stoop

Device manager: Ian Severins